GARBAGE GAZETTE

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RECYCLING IN CONJUNCTION WITH WASTE-TO-ENERGY FACILITIES - PART ONE

Waste-to-energy facilities are receiving more and more attention on a local, state and national level. Often, the public perception concerning these facilities appears to be that these plants offer a more complete solution to our waste disposal problems than they actually do. For instance, contrary to many expectations, waste-to-energy facilities will not eliminate the need for:

1. landfills
2. recycling.

In fact, with the building of waste-to-energy facilities, recycling takes on new importance, not only for the participating municipalities, but for the plants themselves.

Landfills

Landfill space will still be required after waste-to-energy plants are brought on line in order to accommodate unprocessable trash such as bulky wastes, the ash/residue produced from the burning process, and the unprocessed (i.e., bypass) trash that will have to be landfilled during scheduled and unscheduled downtime at the facility. In fact, it is estimated by the Department of Environmental Protection that after resource recovery facilities are brought on line around the state, approximately 20% to 25% of the waste stream will be either residue (ash; non-combustibles) or bypass (trash not processed because of plant downtime) and will require landfilling. (This percentage does not include bulky wastes, also destined for the landfill.) Recycling would lower this percentage through the reduction of the amount of residue created from the burning process, particularly through the removal of non-combustibles, and through the reduction of the bypass materials headed for the landfill during downtime.

Benefits to Municipalities

The primary advantage recycling offers to municipalities in conjunction with waste-to-energy facilities is the same advantage it has always provided, and this consists of cost-avoidance - or - waste disposal savings. When a municipality is still able to operate its own landfill, recycling can extend the life of that landfill by reducing the amount of waste that must be buried, delaying for some time the inevitable prospect of transporting waste out of town to somewhere else in the state, usually at a much greater expense than when the waste was landfilled in their own municipality.

Once waste-to-energy facilities are brought on board, it will still be to the advantage of the municipality to recycle because for every ton taken out of its waste stream, there are less tipping fees to be paid at the facility. Transportation costs will also be lowered since there will be less waste to be transported to and from transfer stations to the facility.

In Everybody's Back Yard: Household Hazardous Waste

A CONFERENCE

TIME: 9:00 A.M. TO 4:00 P.M.
WEDNESDAY, APRIL 3, 1985
PLACE: RAMADA INN, EAST HARTFORD

CONTACT LESLIE LEWIS, DEP, 566-3489
REGISTRATION: $25 PER PERSON
(LIMITED TO 300)
(DEADLINE MARCH 24)

Compatibility of Recycling with Waste-to-Energy Facilities: Glass and Metals

Traditionally, the items most often removed in a municipal recycling program are paper (newsprint primarily), glass and metal (cans, appliances, miscellaneous scrap, etc.) The removal of non-combustibles such as glass and metals from the waste stream is extremely desirable when producing energy from trash. Glass and metals require extremely high temperatures to burn, and in mass burning facilities, will not burn at all. If there are mechanical methods of screening out the non-combustibles built into the system, as is the case with the Mid-Connecticut facility, these materials, in all likelihood, will have to be landfilled along with the ash, since it is unlikely they will be in an acceptably marketable condition after they are filtered out of the general waste stream.

Therefore, removal of glass and metals before they reach the facility improves the fuel value of the remaining trash, and also greatly reduces the amount of ash and/or unburned residue that will require landfilling after the burning process is completed. For example, the Windham Energy Recovery Facility in Windham, Connecticut must dispose of whole bottles and cans that emerge from the facility unburned, along with the ash created from those materials that did burn. (The Windham facility is a mass burning facility.) There is also widespread speculation that a "clean" ash (one that does not contain non-combustibles), may have economic value to the cement industry.

Consumat Systems, Inc.

Consumat Systems, Inc. of Richmond, VA, an engineering firm responsible for the design, construction and operation of small scale modular waste-to-energy facilities, has begun including, as part of their proposals to municipalities and regions, source separation programs aimed at the removal of recyclable non-combustibles (glass, metals) from the waste stream before they reach their facility. Two recent proposals for regional programs in the Keene and Concord, New Hampshire areas have included source separation programs as part of the general waste disposal strategy for the regions. In both cases, the proposals have met with favorable reception.

According to Leo R. Larochelle of Consumat Systems, removal of glass and metals saves considerably on the wear and tear of the facility. Removal of glass, in particular, reduces the build-up of slag (a substance created when glass melts down and re-forms) which can lead to increased maintenance costs and unscheduled downtime. Consumat believes, therefore, that the removal of these non-combustibles is in the interest of both the facility and the municipality because the remaining solid waste will have a higher fuel value and will cause less maintenance problems. This will result in a reduction of the number of times unscheduled downtime will force the landfilling of the unburned waste stream. Meanwhile, municipalities are not paying for triple handling of their glass and metals: first, in transportation costs to the facility; second, for the handling of the non-combustibles at the facility and the increased maintenance costs they will cause; and third, for the eventual landfilling of the unburned materials.

The removal of paper from the waste stream is a far more controversial topic than the removal of non-combustibles, because of paper's high Btu value. The next issue of the Gazette will address this controversy.

EDITOR'S NOTE: Welcome back to the Gazette. Please accept our apology for the four-month delay since publication of the last issue. The Gazette will resume regular publication henceforward. Thank you for your patience.

This issue, and forthcoming issues of the Garbage Gazette, will be printed on 100% recycled paper once again.

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